

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

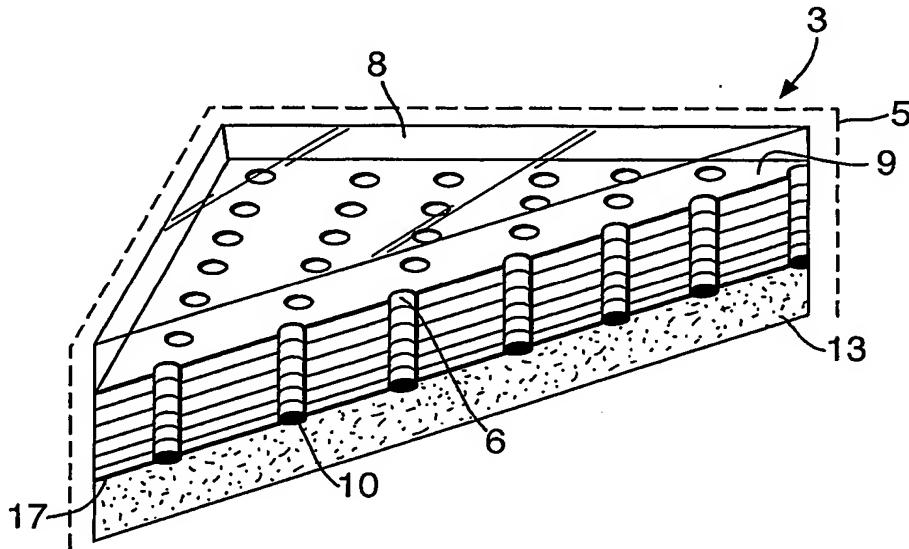
PCT

(10) International Publication Number
WO 2004/086964 A2

- (51) International Patent Classification⁷: **A61B 5/00**
- (21) International Application Number:
PCT/GB2004/001439
- (22) International Filing Date: 1 April 2004 (01.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
- | | | |
|-----------|---------------------------|----|
| 0307526.4 | 1 April 2003 (01.04.2003) | GB |
| 0316082.7 | 9 July 2003 (09.07.2003) | GB |
| 0317386.1 | 24 July 2003 (24.07.2003) | GB |
- (71) Applicant (*for all designated States except US*): COUNCIL FOR THE CENTRAL LABORATORY OF THE RESEARCH COUNCILS [GB/GB]; Daresbury Laboratory, CLIK Knowledge Transfer, Daresbury, Warrington, Cheshire WA4 4AD (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): STEVENS, Robert [GB/GB]; 46 Priors Hill, Wroughton, Swindon, Wiltshire SN4 ORW (GB). GRAYER, Geoffrey, Howard [GB/GB]; Bagatelle, 3 Spray Lane, Southend, Bright Walton, Newbury, Berkshire RG20 7BE (GB). TULLOCH, Andrew [GB/GB]; 100 High Street, Buntingford, Hertfordshire SG9 9TR (GB).
- (52) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (81) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

[Continued on next page]

(54) Title: LARGE AREA DETECTORS AND DISPLAYS



WO 2004/086964 A2

(57) Abstract: A large area detector (3) for use, for example, as an x-ray detector for medical imaging consists of a radiation sensitive detector (8) in combination with a monolithic amplification device consisting of a plurality of alternately stacked dynode and insulation layers having channels (6) extending therethrough in communication with respective signal collectors (10). The large area detector (3) is capable of being formed in tiles of 1 m² or more whilst providing high resolution of the order of 50-60 pixels per mm².



GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.